

Title (en)
Oxide based ceramic matrix composites

Title (de)
Keramische Matrix-Verbundwerkstoffe auf der Basis von Oxyde

Title (fr)
Composites matrices céramiques à base d'oxydes

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Application
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Abstract (en)
The present invention provides oxide based ceramic matrix composites (CMC) having superior properties at high temperatures. The CMC comprises a sol gel matrix with alumina particles mixed or blended in. The sol gel matrix is an aqueous colloidal suspension of a metal oxide, preferably from about 10 wt% to about 25 wt% of the metal oxide. Preferably the metal oxide is alumina (Al₂O₃), silica (SiO₂) or alumina-coated silica. The mixture is then infiltrated into a ceramic fabric, dried, calcined and scintered to form the CMC of the present invention. Methods for making the CMC of the present invention are also provided.

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IPC 8 full level
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